



Indoor mold is the culprit behind an epidemic of headaches in the United States. If these aren't literal headaches—residents in mold-contaminated buildings have complained of headaches and a rash of other ill effects, although an actual physical link is controversial—they certainly are figurative ones, as a result of the nightmare of cleaning up mold contamination and covering the associated costs.

Mold has modest demands for growth: a warm, damp environment with an organic food source. Unfortunately, most houses offer just such an environment—building materials such as wood and drywall fit the bill of fare; temperatures that suit humans also suit mold; and water may seep, leak, condense, or otherwise appear in homes.

On the surface, handling indoor mold growth appears simple. A resident merely conducts regular maintenance, controls moisture, and cleans away mold if it appears. However, mold grows in dark, sometimes inaccessible places. If it is not immediately apparent, a homeowner may not be aware of a problem until the damage is extensive and cleanup has gone beyond the powers of bleach and scrub brushes. At that point, mold-damaged materials must be replaced, a potentially expensive undertaking that in extreme cases could even necessitate razing the house and rebuilding. Such work may not be covered by insurance, and without some sort of financial assistance, residents may be unable to afford reconstruction. Their mold problem will continue, creating an unhealthy living environment, and eroding the value of a property or rendering it unsalable.

Homeowners have sought cures for their "pain" from insurance companies, mold remediation specialists, and, in some cases, the courts. So far, the immediate effect has been to increase the cost of insurance; further effects are anticipated in insurance regulation and mold-related legislation.

Health Concerns

It is fairly well established that mold can trigger allergies and aggravate asthma, but other reported health effects, such as neurological and gastrointestinal symptoms, are less certain. "I doubt that there is a connection, but I would never say that there is not until some studies had been done that were really good," says Harriet Burge, an associate professor of environmental microbiology at the Harvard School of Public Health.

One of the key difficulties in such studies is that there's no method to measure mycotoxins—secondary metabolites produced by certain mold species under certain conditions—in home environments. There's no debate over whether these molds can produce toxins; they can. However, they only produce toxins under certain circumstances, and it would be difficult to ascertain whether those circumstances existed when a given exposure was believed to have occurred. Even if mold samples were to produce toxins in a laboratory setting, that is not sufficient evidence that they would also have done so in the home.

Exposure is another open question. There are no biomarkers for mycotoxin exposure, so researchers have to make some inferences, which may or may not stand up to scrutiny. Animal studies provide some support for concerns about health effects, but they cannot be the sole support because of differences in routes of exposure, dosage, metabolism, sensitivity, and other factors. To claim a health effect, there needs to be some solid human dose-response data, and such data simply do not yet exist.

There is a wealth of literature describing human health effects from ingesting mycotoxins. However, home exposures, if

Despite the lack of clear guidelines, health experts say mold still should not be left in place. "If mold is found in an indoor environment, we recommend dealing with the water source that has permitted that mold to grow. Then, either clean or remove the building material that has the mold on it," Redd says.

Mold Insurance 101

Therein lies the trouble for many residents. "There's been a long-standing mold, fungus, and dry-rot exclusion in [insurance policies]," explains Eric Goldberg, assistant general counsel at the American Insurance According to the New York City-based Insurance Information Institute, a public information group, Texas mold claims rose from 1,050 during the first quarter of 2000 to more than 14,700 in the fourth quarter of 2001. At the start of 2000, the average mold claim cost \$13,719; by the second quarter of 2002, that figure had jumped to \$34,538. Of all mold claims filed in the nation during 2001, 70% occurred in Texas. Originally, all water damage was covered in Texas, regardless of its source. Now, seepage and other types of waterrelated maintenance issues generally are no longer included in new policies, which

means mold damage arising from those causes won't be covered.

"It's amazing to me that something that has been there—and has constantly been there for years-all of a sudden has become the hot topic," says Aaron Trippler, director of government affairs for the American Industrial Hygiene Association in

Fairfax, Virginia. Curiously, though, increased attention to indoor mold does not appear to have been sparked by mold itself, although media stories about toxic mold have certainly played a role in continuing interest. Instead, Trippler attributes the increase in attention to bad-faith lawsuits against insurance companies, as does Robert Hartwig, senior vice president and chief economist at the Insurance Information Institute. "In an inflamed environment like we have around mold, you have a situation in which juries like to go out and try to punish so-called deeppocketed insurance companies. In the end, this has the impact of raising insurance rates for everybody," says Hartwig. And, as premiums increase, homeowner's insurance, usually a prerequisite for buying a house, becomes out of reach for many middle- and low-income Americans.

Although lawsuits may have drawn attention to the mold issue, they have generally not resulted in large settlements against the insurance industry. In one exception, the case of Ballard v. Fire Insurance Exchange, Melinda Ballard, president of the advocacy group Policyholders of America in Austin, Texas, originally won a settlement of \$32 million for her insurer's alleged bad-faith handling of her mold damage claims (this award was later reduced to \$4 million plus interest and legal fees). But her case was unusual because the majority of cases result in no award. Nevertheless, Hartwig says these lawsuits still affect the insurance industry,

tanding mold, fungus urance policies]. . . . If you get sick based on something that may be in your home, Eric Goldberg American Insurance Association

they do occur, would primarily be inhalational, and researchers are uncertain that inhalation effects can be extrapolated from the ingestion data. Furthermore, says Burge, "Most of the ingestion literature that we have-virtually all of it-is based on ingesting large quantities of the toxin, much, much larger than anyone is ever exposed to in any kind of residential or office building environment."

Stephen Redd, chief of the Air Pollution and Respiratory Health Branch at the National Center for Environmental Health of the Centers for Disease Control and Prevention, agrees that the relationship between indoor mold and health effects needs further scrutiny. "This is actually a question that we're asking the Institute of Medicine to address," he says. In addressing this question, the Institute of Medicine will review the literature, identify necessary public health actions based on the current evidence, and describe an agenda for needed research. Conclusions will be released in late summer or early fall of 2003.

In testimony to the U.S. House of Representative Subcommittees on Oversight and Investigations and Housing and Community Opportunity in July 2002, Redd identified several key difficulties in drawing conclusions and setting standards from current knowledge. One problem is that standards for mold sampling and data analysis do not exist. Another difficulty is that researchers do not know what level of mold constitutes a health hazard.

Association, a trade group in Washington, D.C. "It reflects the principle that maintenance-type losses are not included. Your homeowner's policy isn't a maintenance policy; it's meant to protect you against the sudden [and] accidental . . . losses." Health effects also are not covered in these policies. "If you get sick based on something that may be in your home, your homeowner's policy isn't going to pick that up," explains Goldberg.

However, there are situations in which mold is covered. "If the mold results due to a covered peril, then it would be covered in the same manner as the damage from the covered peril," explains Goldberg. For example, if a house catches fire and the water used to extinguish the blaze triggers mold growth, that damage would be covered because it is part of the fire loss. Most states have covered mold if it was the result of a sudden and accidental discharge of water or steam.

Contrast that with a situation in which a home is sealed up before the homeowner leaves for vacation, and moisture trapped in the home causes mold to proliferate. That mold results from the homeowner's failure to properly maintain the house and would not be covered. The only state in which such damage was covered was, until quite recently, Texas. There, a homeowner's policy covered drippy pipes, leaky roofs, seepage, and other chronic leaks and maintenance-type issues.

Texas policies have changed following an unprecedented surge in mold claims. because the simple possibility of large settlements is enough to prompt insurers to conduct extremely thorough, ultimately costly investigations.

Insurance Regulation

Ballard believes other explanations exist for the recent interest in mold. "What we've found in Texas and Florida and even in California to a degree is that when government or the insurance commissioners start a study on [mold] and contemplate excluding it and putting standards to it, suddenly there's a lot of chatter among homeowners who have had water damage," she says. "They start looking at that wall that's turning black, and they say, 'Gee, they're thinking about excluding mold. We'd better file a claim right now while it's covered."

Ballard characterizes the insurance problems as almost a self-inflicted wound by the industry. "On one hand they want it excluded," she says. "[But] when you do that, that opens the door for having public hearings and media attention."

According to Hartwig, regulation is needed to avoid a repeat of the Texas experience in other states. "It could be averted if those states pass language that would allow insurers to somehow contain or limit mold coverage in the policies," he says. "What that would do is allow some protection in the event that mold does

occur, but not make it so lucrative that attorneys in those states decide that it's a way they could retire early." Hartwig says that more than 35 states have already approved some sort of cap or limitation on mold-related losses in insurance policies. Of the states that have yet to approve such limits, most of them are considering it. "All

of them look at Texas, and none wants to become the next Texas," he says.

Some insurance companies have decided to offer mold coverage as a rider to a standard homeowner's policy. "That's where the risk belongs: in the private market," says Hartwig. Tiffany O'Shea, public affairs director for the Southwest regional office of the American Insurance Association, agrees that the insurance industry is heading in that direction. "Since the number of claims exploded, [Texas] has gone back, and companies are offering a variety of policies. I wouldn't say a huge variety, but they're now offering coverage that doesn't include mold coverage specifically," she says.

Ballard cautiously praises the availability of different options, but points out that mold coverage may be beyond the reach of many homeowners. "It's actually a good thing to . . . offer it as a separate rider," she says. "[However,] the average Joe could not afford it. But the average Joe can't afford what he's paying now."

Mold Legislation

Legislators in more than a dozen states and one federal legislator have introduced bills aimed at the indoor mold problem. Bills are tackling a dizzying array of issues such as determining whether mold exposure limits can be set, setting qualification standards for mold remediators, determining standard methods for mold sampling and identification, mandating mold inspection in rental and public housing as well as public buildings, and establishing public education programs. In Arizona and California, legislation has been enacted to study and review mold contamination of indoor environments, including the health and financial effects. Other states, such as Maryland, now address mold in indoor air quality laws. These laws mostly speak to the presence of mold itself, but there are also elements of regulating insurance coverage and addressing the lack of coverage.

According to Ballard, five parties need to be involved in such legislation-homeowners, insurance companies, mortgage lenders, builders, and mold remediators-

"The problem with that approach is that you'll typically wind up with a standard that reflects the least common denominator rather than sound science," he says.

Goldberg agrees that input is needed from everyone, but says details such as establishing exposure limits and setting standard methods for inspection and testing might be better left to scientists. He also notes that in several states, introduced or enacted legislation calls for studying whether it is even possible to develop standards, such as establishing permissible indoor mold exposure levels. "In concept, these are good ideas," he says. "If every state were to enact a law like that, you'd have the potential for a patchwork quilt of fifty different state permissible exposure levels for mold." With the potentially conflicting interests of different stakeholders added on to that, legislation at the state level could be chaotic.

On the federal level, the only bill to be introduced has been H.R. 5040, the Toxic Mold Safety and Protection Act (the Melina Bill) by Congressman John Conyers, Jr. (D-Michigan). This bill was introduced in July 2002 and, had it passed, would have mandated indoor mold health research, established exposure limits and standards for mold remediation, and set up a national mold insurance program administered by the Federal Emergency



and all must be willing to change the way they currently operate. "Of all the five, the homeowner is the only one willing to do more [right now]," she says. "Everybody ought to try to pitch in and do a little something different so that the problem [of indoor mold and its cleanup] is averted.'

However, Goldberg offers a caveat about relying too heavily on various stakeholders' participation. Most of the state bills describe a process for reaching consensus among the scientific community, consumer groups, landlords, building owners, builders, real estate agents, and others on issues such as whether indoor mold constitutes a health risk and standardizing elements such as exposure, inspection, testing, and remediation.

Management Agency to assist homeowners with costs. Like many of the state bills, the Melina Bill did not pass, and it is uncertain that it will be reintroduced.

However, interest in indoor mold shows no signs of waning. Several major reports, including the one by the Institute of Medicine, will be released in 2003, and indoor mold holds a featured place on regulatory and industry meeting agendas. Trippler also anticipates there will probably be a lot more mold-related legislation introduced in the coming year. "It's a complicated issue," he says, "and what makes it complicated is that it's not just a mold issue. It has become an insurance issue."

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